



Objectives

Workshop on

Ecosystem-Based Decision Support Tools for Fisheries Management

14-18 February 2005
Key Largo, Florida





Workshop Objectives

The objective of this workshop is to produce an integrated overview and needs assessment of science in support of ecosystems approaches to fisheries (EAF). Such an overview is a necessary follow-up to numerous policy reviews that have advocated for an ecosystems approach, as opposed to governance systems primarily concerned with individual stocks or fisheries-by-fisheries management plans. In order to support regional ecosystem governance models for fisheries, there are numerous monitoring, assessment and research needs required to assure that relevant goals are achieved.

The specific tasks of the workshop are to:

- (1) review the state-of-the-art in quantitative ecosystem-based decision support tools applied to fishery management,
- (2) develop a comprehensive research agenda for advancing ecosystem approaches to fisheries.

It is envisioned that the product of the workshop will have broad international applicability to ongoing EAF discussions, and publication of the proceedings of the workshop will be sought in a prominent fisheries-related journal. In the USA, the report will be used when developing implementation strategies following the ecosystem theme emphasized in the report of the US Oceans Commission.

Conduct of the Meeting

Science needs supporting regional ecosystem management in fisheries are interdisciplinary and primarily focused on three sets of problem issues: (1) bycatch and fishery interactions, (2) secondary or feedback effects, and (3) interactions between biological and physical components of ecosystems. All three of these broad areas are interrelated, and have biological and social implications for the managed ecosystems. In order to support science-based decision making (as opposed to negotiative decision making), science must provide a monitoring system to generate routine information to inform the governance system regarding the status resources and other phenomena of interest. Additionally, the science system must routinely assess the status of ecosystem attributes relative to some previously defined reference levels, and last, science must provide evaluation of the biological and social consequences of policy choices, and predictions about future states of the system and social outcomes. These monitoring, status determination, evaluation, and prediction capabilities are also required in traditional fisheries and protected species management. However, the complexity of relationships among components and the number of factors considered in EAF result in more complex data and information needs and more comprehensive models and evaluations.



For the purposes of the workshop, a schematic representation of a science-support system informing EAF is developed in the accompanying PowerPoint document. The components of the scheme include:

- Data / Information (social, biological and physical)
- Indicators / Reference Points
- Functional Relationships among system components
- Models and forecasts
- Interactions between scientific advice and the governance system (including adaptive feedback between science and management)

In order to have a structured discussion and informative debate on the science requirements supporting these issues, the potential workshop participants have been pre-assigned to one of six Task Teams reflecting the structure outlined in the schematic diagram. The purpose of these Task Teams will be to provide one or two presentations, in plenary, outlining important aspects of the topic area. These presentations will be used to initiate plenary debate. Following each plenary discussion of a topic, the appropriate Task Team will be responsible for developing a written summary and consensus or opposing views reflecting the discussion. These written summaries will form the bulk of the final report of the workshop. It is envisioned that the Task Team's written overviews will each be about 5 pages long, or otherwise sufficient to cover the issue.

Each of the issue papers should address, at a minimum the following questions:

- (1) What is the current state of the art in this discipline? (include appropriate references)
- (2) Are there appropriate experiences worldwide that demonstrate how research in this discipline can inform ecosystem-based fisheries management?
- (3) What new data, models or information management system is required to advance the discipline so that its products form the basis for ecosystem-based decision making? (priority ranking)
- (4) Based on the above, what changes in policy, governance, or science administration are required to more effectively inform on ecosystem approaches to fisheries?